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DEC-02-2005 16:51 FROM: SUMMA AELAN ADDITON 704-945-6735
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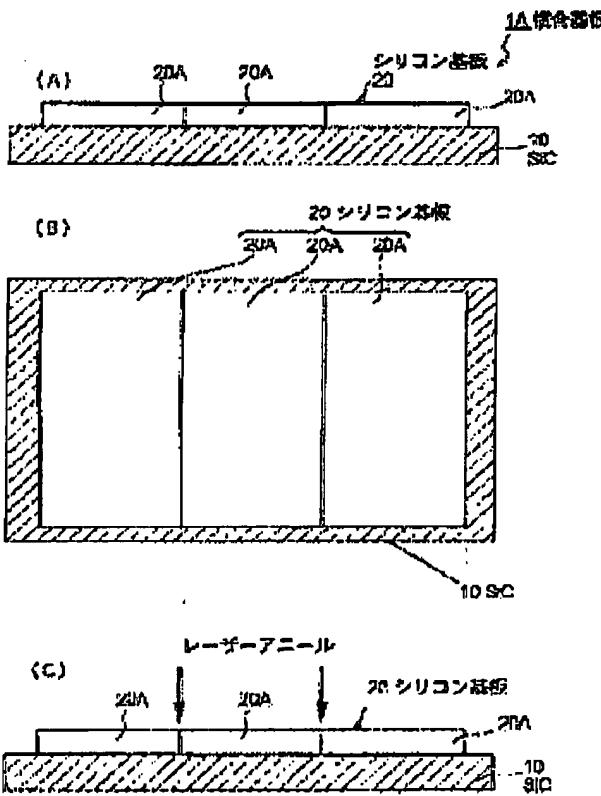
COMPOSITE SUBSTRATE AND SUBSTRATE MANUFACTURING METHOD

Patent number: JP2003257804
Publication date: 2003-09-12
Inventor: INAKANAKA HIROSHI
Applicant: SONY CORP
Classification:
- International: H01L21/02; H01L21/20; H01L21/268; H01L27/12
- European:
Application number: JP20020050734 20020227
Priority number(s): JP20020050734 20020227

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Abstract of JP2003257804

<P>PROBLEM TO BE SOLVED: To form a composite substrate by joining a silicon substrate with a carbon-based substrate.
<P>SOLUTION: In a composite substrate 1a, a plurality of long silicon split substrate pieces 20A are arranged side by side on a large silicon carbide substrate (SiC) 10, and they are annealed to join the respective silicon split substrate pieces 20A with the SiC 10. Then, laser annealing is applied to joints of the silicon split substrate pieces 20A, and they are made integral to form a silicon substrate 20. A porous silicon layer 60 is formed on the silicon substrate 20 by anode conversion, an epitaxial growth film 70 is grown on the porous silicon layer 60, and then the epitaxial growth film 70 is adhered to a glass substrate 90. Then, the porous silicon layer 60 is splitted and removed to obtain a single crystal thin-film silicon layer due to the epitaxial growth film 70 on the glass substrate 90. <P>COPYRIGHT: (C)2003,JPO



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